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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 200300550PFJ	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/L2003/000891	International filing date (<i>day/month/year</i>) 29.10.2003	Priority date (<i>day/month/year</i>) 29.10.2003
International Patent Classification (IPC) or both national classification and IPC G03G9/09, G03G9/12		
Applicant HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 0 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 23.05.2005	Date of completion of this report 13.09.2005	
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Vanhecke, H Telephone No. +31 70 340-2451 	

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IL2003/000891

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-8 as published

Claims, Numbers

1-19 as published

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-19
	No: Claims	
Inventive step (IS)	Yes: Claims	1-19
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IL2003/000891

1. Reference is made to the following documents:

D1: EP-A-671664

D2: US-A-3890240

D3: GB-A-2370580 (cited in present application)

D4: US-A-4455361

The document D4 was not cited in the international search report. A copy of the document is appended hereto.

2. D1 discloses polymer based toner particles comprising three different colored pigments (claim 1; example 5; column 16, lines 50-58). D1 explicitly refers to all toner colours except to black toners. The subject matter of present independent claims 1 and 19 specifying black toner particles (or the use thereof) is consequently novel over D1 (cf. Article 33 (2) and Rule 64 (1) - (3) PCT)

D4 discloses black toners particles comprising a polymer and carbon black. A blueish colorant is preferably added in order to improve colour deepness (claim 1; column 4, lines 52-56)). Present claims 1 and 19 are novel over D4 because of the addition to the carbon black of two more different colorants instead of the in D4 disclosed one additional colorant (cf. Article 33 (2) and Rule 64 (1) - (3) PCT).

D2 and D3 disclose colored materials comprising carbon black combined with two other different colorants (in D2: claim 4, examples 5,6,13.18 and in D3:). Present claims 1 and 19 are novel over D3-4 by the fact the colored material disclosed do not consist of (solid) polymer containing particles (cf. Article 33 (2) and Rule 64 (1) - (3) PCT).

Consequently the subject matter of claims 1 and 19 is regarded as novel (cf. Article 33 (2) and Rule 64 (1) - (3) PCT).

The subject matter of claims 2-18, dependent of novel main claim 1 is also novel.

3. D1 and D4 are regarded as closest prior art documents, both disclosing polymer containing toner particles, distinguished from the claim 1 polymer toners by the specific black colouring addition of carbon black and two more other colorants of different colour. Said claimed black colouring combination solves the problem of providing black polymer

toner particles having improved black colour stability. Both D2 and D3 mention the combination of carbon black and two other colorants of different colour in order to obtain improved black colouring. However both combinations are used in liquid composition, and the blackening of solid polymer is not disclosed. As the colouring effects of colorants is very dependent of the nature of the matter to be colored, the teachings of D2 and D3 cannot readily be applied to the material dealt with in D1 and D4. Moreover none of D1 or D4 is primarily concerned with the black colour quality of the toner particles. Consequently a selected merging of the teachings of D1 or D4 with the teachings of D2 or D3, which can lead to the toner particles of claim 1, would not readily be performed by a skilled person aware of said four documents.

So the present application meets the criteria of Article 33(1) PCT, because the subject-matter of claim 1 involves an inventive step in the sense of Article 33(3) PCT.

The subject matter of claims 2-18, dependent of inventive main claim 1, and the subject matter of independent claim 19 based on the use in a printing method of the toner particles defined in claim 1 also involves an inventive step.